



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 1111 E. Main Street, Suite 1400, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

(804) 698-4000
1-800-592-5482

**STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
KING GEORGE COUNTY SERVICE AUTHORITY
FOR
HOPYARD FARM WASTEWATER TREATMENT PLANT
(VPDES Permit No. VA0089338)
AND
FAIRVIEW BEACH WASTEWATER TREATMENT PLANT
(VPDES Permit No. VA0092134)
AND
DAHLGREN WASTEWATER TREATMENT PLANT
(VPDES Permit No. VA0026514)
AND
OAKLAND PARK WASTEWATER TREATMENT PLANT
(VPDES Permit No. VA0086789)
AND
PURKINS CORNER WASTEWATER TREATMENT PLANT
(VPDES Permit No. VA0070106)**

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and King George County Service Authority regarding the Hopyard Farm Wastewater Treatment Plant, Fairview Beach Wastewater Treatment Plant, Dahlgren Wastewater Treatment Plant, Oakland Park Wastewater Treatment Plant, and Purkins Corner Wastewater Treatment Plant, for the purpose of resolving certain violations of the State Water Control Law, Regulations, and VPDES Permits No. VA0089338, VA0092134, VA0026514, VA0086789, and VA007016.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "305(b) report" means the report required by Section 305(b) of the Clean Water Act (33 United States Code § 1315(b)), and Va. Code § 62.1-44.19:5 for providing Congress and the public an accurate and comprehensive assessment of the quality of State surface waters.
2. "Authority" means the King George County Service Authority, an authority created pursuant to the Virginia Water and Waste Authorities Act, Va. Code § 15.2-5100 *et seq.* King George County Service Authority is a "person" within the meaning of Va. Code § 62.1-44.3.
3. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and 62.1-44.7.
4. "CBOD₅" means 5 day carbonaceous biochemical oxygen demand.
5. "Dahlgren WWTP" means the Dahlgren Wastewater Treatment Plant located at 16383 Dahlgren Road, King George, Virginia, which treats and discharges treated sewage and other municipal wastes, for the residents and businesses of King George County.
6. "Dahlgren Permit" means VPDES Permit No. VA0026514 which was issued under the State Water Control Law and Regulations to the Authority.
7. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.
8. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.
9. "Discharge" means discharge of a pollutant. 9 VAC 25-31-10.
10. "Discharge of a pollutant" when used with reference to the requirements of the VPDES permit program means:
 - (a) Any addition of any pollutant or combination of pollutants to surface waters from any point source; or
 - (b) Any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

11. "DMR" means Discharge Monitoring Report.
12. "DO" means dissolved oxygen.
13. "Effluent" means wastewater – treated or untreated – that flows out of a treatment plant, sewer, or industrial outfall.
14. "Fairview Beach WWTP" means the Fairview Beach Wastewater Treatment Plant located at 6268 Riverview Drive, King George, Virginia, which treats and discharges treated sewage and other municipal wastes, for the residents and businesses of King George County.
15. "Fairview Permit" means VPDES Permit No. VA0092134 which was issued under the State Water Control Law and Regulations to the Authority.
16. "Hopyard Farm WWTP" means the Hopyard Farm Wastewater Treatment Plant located at State Route 607 (Port Conway Rd), King George, Virginia, which treats and discharges treated sewage and other municipal wastes, for the residents and businesses of King George County.
17. "Hopyard Permit" means VPDES Permit No. VA0089338 which was issued under the State Water Control Law and Regulations to the Authority.
18. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.
19. "NRO" means the Northern Regional Office of DEQ, located in Woodbridge, Virginia.
20. "O&M" means operations and maintenance.
21. "Oakland Park WWTP" means the Oakland Park Wastewater Treatment Plant located at 1015 French Court, King George, Virginia, which treats and discharges treated sewage and other municipal wastes, for the residents and businesses of King George County.
22. "Oakland Permit" means VPDES Permit No. VA0086789 which was issued under the State Water Control Law and Regulations to the Authority.
23. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the State Water Control Law.
24. "PCBs" means Polychlorinated Biphenyls.
25. "Pollutant" means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials,

radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 USC § 2011 *et seq.*)), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water... 9 VAC 25-31-10.

26. "Pollution" means such alteration of the physical, chemical, or biological properties of any state waters as will or is likely to create a nuisance or render such waters (a) harmful or detrimental or injurious to the public health, safety, or welfare or to the health of animals, fish, or aquatic life; (b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses, provided that (i) an alteration of the physical, chemical, or biological property of state waters or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution but which, in combination with such alteration of or discharge or deposit to state waters by other owners, is sufficient to cause pollution; (ii) the discharge of untreated sewage by any owner into state waters; and (iii) contributing to the contravention of standards of water quality duly established by the Board, are "pollution." Va. Code § 62.1-44.3.
27. "Purkins Corner WWTP" means the Purkins Corner Wastewater Treatment Plant located at 11224 Henry Griffin Road, King George, Virginia, which treats and discharges treated sewage and other municipal wastes, for the residents and businesses of King George County.
28. "Purkins Permit" means VPDES Permit No. VA0070106 which was issued under the State Water Control Law and Regulations to the Authority.
29. "Regulation" means the VPDES Permit Regulation, 9 VAC 25-31-10 *et seq.*
30. "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code.
31. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3.
32. "TKN" means Total Kjeldahl Nitrogen.
33. "TN" means Total Nitrogen.
34. "TP" means Total Phosphorus.
35. "TSS" means Total Suspended Solids.
36. "Va. Code" means the Code of Virginia (1950), as amended.

37. "VAC" means the Virginia Administrative Code.

38. "VPDES" means Virginia Pollutant Discharge Elimination System.

39. "Warning Letter" or "WL" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.

SECTION C: Findings of Fact and Conclusions of Law

HOPYARD FARM WWTP

1. The Authority owns and operates the Hopyard Farm WWTP. The Hopyard Permit allows the Authority to discharge treated sewage and other municipal wastes from the Hopyard Farm WWTP to the tidal Rappahannock River, in strict compliance with the terms and conditions of the Hopyard Permit.
2. The Rappahannock River is located in the Rappahannock River Basin. The Rappahannock is listed in DEQ's 303(d)/305(b) report as impaired for fish consumption use for PCBs and for dissolved oxygen for aquatic life. The dissolved oxygen impairment is addressed via the Chesapeake Bay TMDL and annual nutrient and solids loadings for the facility.
3. In submitting its DMRs, as required by the Hopyard Permit, the Authority has indicated that it exceeded discharge limitations contained in Part I.A.1 of the Hopyard Permit, for Total Phosphorus and *E. Coli*, as follows:
 - a. TP- the Authority reported exceedances of the monthly concentration average limit for June 2015, June 2016, July 2016, September 2016, October 2016, December 2016, April 2018, and May 2018.
 - b. *E. Coli*- the Authority reported an exceedance of the monthly concentration average limit for December 2017 and January 2018.
4. In addition, the Authority routinely failed to provide information from September 2015 through May 2017 as required by Permit Part II.D.
5. On July 11, 2017, DEQ conducted a diagnostic evaluation at Hopyard Farm WWTP. Information from the evaluation is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the purpose of the evaluation was compliance assistance. During the evaluation, DEQ staff observed the following maintenance issues:
 - a. The grinder/macerator for the facility could not be located.

- b. The influent drop pipe for SBR #2 was not installed and SBR #2 was not in service.
 - c. Indicator lights for the UV bulbs in the disinfection unit needed to be repaired or replaced so that the operators can easily determine their status.
- 6. On January 30, 2018, DEQ staff conducted an energy audit at Hopyard Farm WWTP. Information from the audit is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the audit was not a compliance-based inspection. While conducting the audit, DEQ staff observed the following:
 - a. The influent comminutor had been removed. The automatic screen was bypassed and the manual screen was being used to remove screenable materials from the influent flow.
 - b. The influent drop pipe for SBR #2 had been installed. However, only one SBR was in operation.
 - c. The discharge wet well following the UV equipment was not completely draining after final effluent discharge.
- 7. On February 13, 2018, DEQ staff performed a site inspection at Hopyard Farm WWTP. One UV disinfection unit was offline and another unit had just been repaired. The Hopyard operators noted that there had been ongoing *E. coli* issues in the effluent because of the maintenance issues with the units. The Authority did not submit a report of noncompliance to DEQ for the non-compliance with monthly average *E. coli* limits. During the inspection, DEQ staff observed that there had been an unauthorized discharge from the Hopyard Farm WWTP. The Authority did not submit a report of an unusual discharge to DEQ.
- 8. During the February 13, 2018 inspection, DEQ staff also observed the following:
 - a. The check valve in the level transducer for SBR Unit #2 was not working properly.
 - b. The solids level in the digester was high.
 - c. The coarse air bubble diffuser was malfunctioning in the digester.
 - d. The air compressor for the UV unit continuously tripped the circuit breaker and operations staff were not confident that the unit is properly cleaned by the automatic skimmer as per the manufacturer's recommendations.

- e. The alum and soda ash spilled over the tops of the tanks in the chemical addition building and flowed to the pump station.
 - f. Partially treated SBR water was pouring onto the ground from the UV unit #2.
9. NRO issued Warning Letters and Notices of Violation to the Authority as follows: WL No. W2015-11-N-1004, dated November 18, 2015; WL No. W2016-05-N-1012, dated May 17, 2016; WL No. W2016-06-N-1005, dated June 14, 2016; NOV No. W2016-07-N-0012, dated July 25, 2016; NOV No. W2016-08-N-0008, dated August 29, 2016; NOV No. W2016-09-N-0009, dated October 5, 2016; NOV No. W2016-10-N-0007, dated October 24, 2016; NOV No. W2016-11-N-0005, dated November 16, 2016; NOV No. W2016-12-N-0012, dated December 20, 2016; NOV No. W2017-01-N-0007, dated January 9, 2017; NOV No. W2017-02-N-0005, dated February 16, 2017; NOV No. W2017-03-N-0005, dated March 15, 2017; NOV No. W2017-04-N-0021, dated April 25, 2017; NOV No. W2017-05-N-0006, dated May 25, 2017; NOV No. W2017-06-N-0006, dated June 13, 2017; NOV No. W2018-02-N-0005, dated February 15, 2018; NOV No. W2018-02-N-0021, dated March 27, 2018; NOV No. W2018-04-N-0003, dated April 13, 2018; and NOV No. W2018-07-N-0002, dated July 6, 2018.
10. The Authority indicated that the TP exceedances were the result of fluctuating mixed liquors which made the alum feed rates hard to consistently maintain phosphorus levels. The Authority said mixed liquors and alum feed rates have been more stable since the end of 2016. The Authority stated the *E. coli* exceedance was caused by issues with the UV system.
11. Va. Code § 62.1-44.5 states that: “[E]xcept in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances.”
12. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.
13. Part I.A of the Hopyard Permit provides that the Authority shall limit and monitor discharges from the outfalls in accordance with the discharge limitations in the Hopyard Permit.
14. Part II.D of the Hopyard Permit states: “The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from this discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of

the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.”

15. Part II.H of the Hopyard Permit states in part: “If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge.”
16. Part II.I of the Hopyard Permit states in part: “The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.”
17. Part II.Q of the Hopyard Permit provides that the Authority shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.
18. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a “certificate” under the statute.
19. The Department has issued no permits or certificates to the Authority authorizing the discharge of wastewater from the Hopyard Farm WWTP other than VPDES Permit No. VA0089338.
20. The Rappahannock River is a surface water located wholly within the Commonwealth and is a “state water” under State Water Control Law.

FAIRVIEW BEACH WWTP

21. The Authority owns and operates the Fairview Beach WWTP. The Fairview Permit allows the Authority to discharge treated sewage and other municipal wastes from the Fairview Beach WWTP to the Potomac River, in strict compliance with the terms and conditions of the Fairview Permit.
22. The Potomac River is located in the Potomac River Basin. This facility discharges to the oligohaline portion of the Potomac River, which falls under Maryland’s jurisdiction. However, 0.0048 square miles of the Potomac River along the shoreline is delineated for Virginia water quality assessment. It is assessed based on information from the Virginia Department of Health and as part of Chesapeake Bay segment POTOH. The recreation use is categorized as impaired due to data from the Virginia Department of Health, Division of Zoonotic and Environmental Epidemiology/ Virginia’s Beaches Environmental Assessment and Coastal Health (BEACH) Program. The impairment resulted from a joint VDH-DEQ assessment review. The fish consumption use is categorized as impaired due to a Virginia Department of Health, Division of Health Hazards Control, PCB fish consumption advisory. A PCB TMDL for the tidal Potomac River watershed has been completed and approved. The aquatic life use is fully

supporting. A TMDL for nutrients and sediment has been completed for the Chesapeake Bay watershed.

23. In submitting its DMRs, as required by the Fairview Permit, the Authority has indicated that it exceeded discharge limits contained in Part I.A.1 of the Permit, for Ammonia as N, Fecal Coliform, Enterococci, DO, and TP, as follows:
- a. Ammonia as N- the Authority reported exceedances of the monthly concentration average limit for December 2014. The Authority reported exceedances of the weekly concentration average maximum limit for December 2014, January 2015, January 2017, July 2017, and September 2017.
 - b. Fecal Coliform- the Authority reported exceedances of the monthly concentration average limit for January 2015, April 2016, May 2016, July 2016, August 2016, October 2016, November 2016, January 2017, April 2017, May 2017, June 2017, September 2017, December 2017, January 2018, February 2018, and May 2018.
 - c. Enterococci- the Authority reported exceedances of the monthly concentration average limit for February 2015, April 2015, May 2016, January 2017, and September 2017, January 2018, February 2018, and May 2018.
 - d. DO- the Authority reported a failure to meet the minimum concentration limit for June 2017.
 - e. TP- the Authority reported exceedances of the calendar year limit for 2016 and 2017. The Authority reported an exceedance of the monthly concentration average for April 2018.
24. The Authority routinely delayed or failed to provide information from September 2015 through May 2017 as required by Permit Part II.D.
25. On December 17, 2015, DEQ conducted an inspection of the Fairview Beach WWTP and observed that the SBR mixers were non-operational and a large amount of debris and rags were observed in tanks.
26. The Authority submitted a late DMR for the January 2016 reporting period and the February and June 2017 reporting periods.
27. On April 20, 2016, DEQ conducted an inspection of the Fairview Beach WWTP and observed that the headworks auger and grit processes were not in service and the Bank 2 UV module was in need of repair.
28. On May 15, 2017, DEQ staff conducted a diagnostic evaluation at the Fairview Beach WWTP. Information from the evaluation is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the

purpose of the evaluation was compliance assistance. During the evaluation, DEQ observed the following maintenance issues:

- a. The Pre-EQ basin was out of service.
- b. Degritting equipment was out of service due to a blockage in the pipes from the degritting operation to the cyclone degritter used to wash and separate grit.
- c. The original soda ash and alum feed pumps were out of service
- d. Several UV bulbs were out of service.

29. On January 31, 2018, DEQ staff conducted an energy audit at Fairview Beach WWTP. Information from the audit is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the audit was not a compliance-based inspection. While conducting the audit, DEQ staff observed the following:

- a. The preliminary treatment portion of the facility was neglected. Poor screening collection was occurring and screened material was scattered around the pad.
- b. The auger screening device was not maintained as indicated by a scraping noise, and rags and trash wrapped around the assembly.
- c. The grit pump was out of service due to a clogged line.
- d. There were missing or inoperative UV bulbs.

30. NRO issued Warning Letters and Notices of Violation for the exceedances and violations listed above as follows: WL No. W2015-02-N-1011, dated February 23, 2015; WL No. W2015-03-N-1007, dated March 19, 2015; WL No. W2015-04-N-1034, dated April 20, 2015; NOV No. W2015-06-N-0013, dated June 29, 2015; NOV No. W2015-11-N-0013, dated November 18, 2015; NOV No. W2016-02-N-0010, dated February 22, 2016; NOV No. W2016-04-N-0007, dated April 25, 2016; NOV No. W2016-05-N-0007, dated May 17, 2016; NOV No. W2016-06-N-0007, dated June 14, 2016; NOV No. W2016-07-N-0010, dated July 12, 2016; NOV No. W2016-08-N-0007, dated August 29, 2016; NOV No. W2016-09-N-0008, dated October 5, 2016; NOV No. W2016-10-N-0006, dated October 24, 2016; NOV No. W2016-11-N-0004, dated November 16, 2016; NOV No. W2016-12-N-0011, dated December 20, 2016; NOV No. W2017-01-N-0006, dated January 9, 2017; NOV No. W2017-02-N-0004, dated February 16, 2017; NOV No. W2017-03-N-0004, dated March 15, 2017; NOV No. W2017-04-N-0020, dated April 25, 2017; NOV No. W2017-05-N-0005, dated May 25, 2017; NOV No. W2017-06-N-0007, dated June 13, 2017; NOV No. W2017-07-N-0007, dated July 20, 2017; NOV No. W2017-08-N-0007, dated August 15, 2017; NOV No. W2017-09-N-0002, dated September 27, 2017; NOV No. W2017-11-N-0003, dated November 9, 2017; NOV No.

W2018-02-N-0006, dated February 14, 2018; NOV No. W2018-03-N-0022, dated March 27, 2018; NOV No. W2018-04-N-0004, dated April 13, 2018, and NOV No. W2018-07-N-0003, dated July 6, 2018.

31. The Authority indicated that the Ammonia as N exceedance was a result of insufficient air/dissolved oxygen delivery to the SBR reactor tanks. The Authority adjusted the DO settings to provide more DO for ammonia removal. The Authority said the Fecal Coliform and Enterococci results were due to an ongoing UV system issue. The Authority said it was receiving poor customer service and had been unable to repair the ballast boxes or receive new ones.
32. On July 7, 2017, the Authority responded to many of the NOVs and DEQ's December 2015 and April 2016 inspections via letter. The letter stated that during DEQ's 2015 inspection, the Pre-EQ Basin, headworks auger, SBR mixer, and UV circuit board needed repair. The Authority reported that the Pre-EQ Basin work was completed in March 2016. The Basin was cleaned and new diffuser sleeves were installed. The Basin blowers were inspected and were brought into operational condition. The Basin effluent pump was inspected and brought into operational condition. The headworks auger screw was replaced in February 2016. The SBR mixers were repaired in early April 2016. The UV system was still in need of repair due to technical support issues. A service call was performed in June 2016 but an issue with the ballast box had not yet been repaired.
33. Va. Code § 62.1-44.5 states that: "[E]xcept in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances."
34. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.
35. Part I.A of the Fairview Permit provides that the Authority shall limit and monitor discharges from the outfalls in accordance with the discharge limitations in the Fairview Permit.
36. Part II.C of the Fairview Permit requires that the Authority submit the results of the required monitoring not later than the 10th day of the month after monitoring takes place
37. Part II.D of the Fairview Permit states: "The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from this discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of

the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.”

38. Part II.R of the Fairview Permit provides that the Authority shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.
39. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a “certificate” under the statute.
40. The Department has issued no permits or certificates to the Authority authorizing the discharge of wastewater from the Fairview Beach WWTP other than VPDES Permit No. VA0092134.
41. The Potomac River is a surface water located partially within the Commonwealth and is a “state water” under State Water Control Law.

DAHLGREN WWTP

42. The Authority owns and operates the Dahlgren WWTP. The Dahlgren Permit allows the Authority to discharge treated sewage and other municipal wastes from the Dahlgren WWTP to Williams Creek in strict compliance with the terms and conditions of the Dahlgren Permit.
43. Williams Creek is located in the Potomac River Basin. Williams Creek is listed in DEQ’s 305(b)/303(d) report as impaired for aquatic life use due to low dissolved oxygen, and aquatic plants (Macrophytes). This segment is listed as impaired for recreational use due to Enterococcus. The source of the impairment is listed variously as agriculture, municipal point sources, industrial discharges, sanitary sewer overflows, loss of habitat, and atmospheric deposition of nitrogen.
44. In submitting its DMRs, as required by the Permit, the Authority indicated that it exceeded discharge limitations contained in Part I.A.1 of the Permit, for TSS, TKN, TN, TP, and Enterococci as follows:
 - a. TSS- the Authority reported exceedances of the monthly concentration limit for January 2015, February 2015, March 2015, April 2015, and February 2018. The Authority reported exceedances of the weekly concentration limit for January 2015, February 2015, March 2015, April 2015, February 2018, March 2018, and April 2018.
 - b. TKN- the Authority reported exceedances of the monthly concentration limit for March 2015, April 2015, and April 2018. The Authority reported exceedances of the weekly concentration limit for March 2015 and April 2015.

- c. TN- the Authority reported exceedances of the calendar year limit for 2015.
 - d. TP- the Authority reported exceedances of the calendar year concentration average limit for 2015 and 2017.
 - e. Enterococci- the Authority reported exceedances of the Enterococci monthly average for March 2018 and April 2018.
45. On April 30, 2015, DEQ conducted an inspection of the Dahlgren WWTP and observed the following:
- a. The UV intensity meter for Bank #1 and Bank #2 indicated a 0.0 percent intensity and daily sampling for *Enterococci* had not been implemented.
 - b. There was a strong sewage and ammonia odor throughout the facility, especially in the filtration and disinfection building. In addition, the lagoon liner was floating on the water's surface; solids were observed in the clarifier, filtration tank, and effluent tank; and turbid and discolored water was observed after the UV disinfection.
 - c. Sludge was observed on the ground adjacent to the digester.
46. The Authority failed to submit the SIU survey by the June 9, 2015 deadline. The SIU survey was not received until June 30, 2017.
47. The Authority delayed or failed to provide information in September 2015 and from November 2015 to May 2017 as required by Permit Part II.D.
48. In September 2016, the Authority had an unauthorized discharge which represents a failure by the Authority to maintain Reliability Class I at the pump station.
49. The Authority submitted a late DMR for the June 2017 reporting period. It was received August 9, 2017.
50. On July 18, 2017, DEQ staff conducted a diagnostic evaluation at the Dahlgren WWTP. Information from the evaluation is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the purpose of the evaluation was compliance assistance. During the evaluation, DEQ staff observed the following maintenance issues:
- a. The liner of the equalization basin was damaged with grass growing through holes in the liner fabric.

- b. The short aerator rotor near the influent to oxidation ditch #1 was inoperative because of worn bearings.
 - c. Three of the bulbs in bank #2 of the UV disinfection units were not operating.
51. On February 1, 2018, DEQ staff conducted an energy audit at Dahlgren WWTP. Information from the audit is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the audit was not a compliance-based inspection. While conducting the audit, DEQ staff observed that the bearings on several of the disk aerators were partially or completely worn down.
52. NRO issued Notices of Violation for the violations above as follows: NOV No. W2015-04-N-0005, dated May 5, 2015; NOV No. W2015-05-N-0005, dated May 26, 2015, revised October 5, 2015; NOV No. W2015-06-N-0007, dated June 29, 2015; NOV No. W2015-08-N-0003, dated August 27, 2015; NOV No. W2015-09-0005, dated September 16, 2015; NOV No. W2015-10-N-0001, dated October 8, 2015; NOV No. W2015-11-N-0006, dated November 18, 2015; NOV No. W2015-12-N-0002, dated December 22, 2015; NOV No. W2016-01-N-0004, dated January 26, 2016; NOV No. W2016-02-N-0001, dated February 17, 2016; NOV No. W2016-03-N-0003, dated March 16, 2016; NOV No. W2016-04-N-0003, dated April 25, 2016; NOV No. W2016-05-N-0002, dated May 17, 2016; NOV No. W2016-06-N-0004, dated June 14, 2016; NOV No. W2016-07-N-0006, dated July 12, 2016; NOV No. W2016-08-N-0002, dated August 29, 2016; NOV No. W2016-09-N-0005, dated October 5, 2016; NOV No. W2016-10-N-0003, dated October 24, 2016; NOV No. W2016-11-N-0001, dated November 16, 2016; NOV No. W2016-12-N-0008, dated December 20, 2016; NOV No. W2017-1-N-0001, dated January 9, 2017; NOV No. W2017-02-N-0001, dated February 16, 2017; NOV No. W2017-03-N-0001, dated March 15, 2017; NOV No. W2017-04-N-0017, dated April 25, 2017; NOV No. W2017-05-N-0002, dated May 25, 2017; NOV No. W2017-06-N-0001, dated June 13, 2017; NOV No. 2018-02-N-0001, dated February 14, 2018; NOV No. W2018-05-N-0005, dated May 18, 2018; and NOV No. W2018-06-N-0002, dated June 11, 2018.
53. On May 15, 2015, the Authority sent a letter in response to the May 5, 2015 NOV. According to the Authority, the TSS exceedances reported for the February 2015 reporting period were due to work on the automatic control systems for dissolved oxygen, internal recycle, and IFAS air scour controls. Additionally, the Authority replaced two sensors that were malfunctioning. The Authority also replaced two variable speed drives for the air rotors.
54. On June 10, 2015, the Authority sent a letter in response to the May 26, 2015 NOV. The Authority explained that the weekly and monthly concentration average limit exceedances for TKN and TSS for the January and March 2015 DMR reporting periods were caused by the same factors that the Authority explained in the May 15th letter. In addition, the Authority noted that the outer, anoxic ring was not maintaining an optimum oxidation-reduction potential (ORP) value and that the ring may have been turning

slightly septic and these solids were passing to the downstream rings and clarifier. In response, the Authority installed aeration disks on the outer ring rotors to provide enough air to maintain an ORP reading that allows denitrification.

55. In a letter dated June 29, 2017, the Authority responded to the November 2015-June 2017 NOVs. In the letter, the Authority stated that it had questioned the requirement for the Industrial User Survey and had asked that the requirement be omitted or that a later due date be granted since the Authority had conducted a similar survey as part of the previous permit and was not experiencing growth or new connections. DEQ did not grant the request to remove the requirement or grant an extension. The Authority conducted the survey late and submitted delayed survey results. The Authority also stated that it hired a contractor to repair the synthetic liner within the EQ Basin.
56. In its June 29 letter, the Authority said it was considering further actions, including investigating the use of microalgae utilization for algae control, construction of a roof or cover for the final effluent tank to reduce the debris that enters the tank and the amount of sun exposure to reduce algae growth, and increasing the frequency of cleaning units to reduce particulate matter and floating material.
57. On November 29, 2017, DEQ staff met with Authority representatives to discuss the compliance history at the WWTPs and possible corrective actions. The Authority said the Dahlgren liner had been repaired or new liner was installed. The Authority also said it was considering switching to a UV/chlorination combination to compensate for the UV bank bulbs that were not working.
58. During the February 1, 2018 energy audit, DEQ staff confirmed that the equalization basin liner had been repaired.
59. Va. Code § 62.1-44.5 states that: “[E]xcept in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances.”
60. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.
61. Part I.A of the Dahlgren Permit provides that the Authority shall limit and monitor discharges from the outfalls in accordance with the discharge limitations in the Dahlgren Permit.
62. Part II.C of the Dahlgren Permit requires that the Authority submit the results of the required monitoring not later than the 10th day of the month after monitoring takes place
63. Part II.D of the Dahlgren Permit states: “The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine

whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from this discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.”

64. Part II.Q of the Dahlgren Permit provides that the Authority shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.
65. Part I.C.1 of the Dahlgren Permit provides that within 180 days of the effective date of the Dahlgren Permit, the Authority shall submit to DEQ an updated survey of all Industrial Users discharging to the POTW.
66. Permit Part I.E.9 of the Dahlgren Permit provides that the Authority shall conduct all sewage sludge use or disposal activities in accordance with the Sludge Management Plan approved with the issuance of the Dahlgren Permit.
67. Permit Part I.E.5 of the Dahlgren Permit requires the permitted treatment works to meet Reliability Class I.
68. The Authority and DEQ entered into a Consent Order (2014 Order) on November 7, 2014, to resolve violations of the State Water Control Law and Regulations at the Dahlgren WWTP. Appendix A of the 2014 Order required daily sampling for *Enterococci* during periods where the UV intensity meters were down or failed to properly display. The daily sampling was required until such time as the intensity meters were fully operational.
69. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a “certificate” under the statute.
70. The Department has issued no permits or certificates to the Authority authorizing the discharge of wastewater from the Dahlgren WWTP other than VPDES Permit No. VA0026514.

OAKLAND PARK WWTP

71. The Authority owns and operates the Oakland Park WWTP. The Oakland Permit allows the Authority to discharge treated sewage and other municipal wastes from the Oakland Park WWTP to Muddy Creek in strict compliance with the terms and conditions of the Oakland Permit.

72. Muddy Creek is located in the Rappahannock River Basin. Muddy Creek is listed in DEQ's 305(b) report as not supporting recreational use due to exceedances of *E. coli* bacteria and not supporting aquatic life use due to biological monitoring indicating an unhealthy benthic macroinvertebrate community.
73. In submitting its DMRs, as required by the Oakland Permit, the Authority has indicated that it exceeded discharge limitations contained in Part I.A.1 of the Oakland Permit, for TSS, TKN, CBOD₅, Copper, DO, TP, and TN, as follows:
- a. TSS- the Authority reported exceedances of the weekly concentration average maximum limit for February 2015, April 2017, November 2017, December 2017, and January 2018. The Authority reported exceedances of the weekly quantity average maximum limit for November 2017 and December 2017. The Authority reported exceedances of the monthly concentration average limit for February 2015, February 2017, November 2017, December 2017, January 2018 and February 2018. The Authority reported exceedances of the monthly quantity average maximum limit for November 2017 and December 2017.
 - b. TKN- the Authority reported exceedances of the weekly quantity average maximum limit for November 2017. The Authority reported exceedances of the monthly concentration average limit for March 2015, December 2016, February 2017, March 2017, April 2017, November 2017, December 2017, and January 2018. The Authority reported exceedances of the weekly concentration average maximum limit for December 2015, December 2016, January 2017, April 2017, May 2017, November 2017, December 2017, February 2018, and May 2018.
 - c. CBOD₅- the Authority reported exceedances of the weekly concentration average maximum limit for December 2016, December 2017, and March 2018. The Authority reported exceedances of the monthly concentration average limit for December 2017 and January 2018. The Authority reported exceedances of the monthly quantity average limit for December 2017. The Authority reported exceedances of the weekly quantity average maximum limit for December 2017.
 - d. Copper- the Authority reported exceedances of the monthly concentration average limit for September 2016, January 2017, February 2017, and November 2017. The Authority reported exceedances of the copper weekly concentration average maximum limit for September 2016, January 2017, February 2017, and November 2017.
 - e. DO- the Authority reported a failure to meet the minimum concentration limit for June 2017, July 2017, August 2017, September 2017, October 2017, and April 2018.
 - f. TP- the Authority reported an exceedance of the calendar year limit for 2017.

- g. TN- the Authority reported an exceedance of the calendar year limit for 2016 and 2017.
- 74. On May 21, 2015, June 2, 2015, and June 16, 2015, DEQ staff conducted inspections of the Oakland Park WWTP and observed solids in the clarifier effluent trough and pre and post UV treatment, and flashing UV intensity measurement.
- 75. On July 22, 2015, DEQ conducted an inspection and observed that a bypass of the filtration system was being conducted. DEQ had not been notified of the bypass.
- 76. On August 18, 2015 and September 11, 2015, DEQ conducted inspections and the DO and pH meter thermometer annual certifications that were due June 2015 were unavailable.
- 77. The Authority routinely delayed or failed to provide information in September 2015, November 2015-April 2016, and June 2016-May 2017 as required by Permit Part II.D.
- 78. During a facility inspection on April 20, 2016, DEQ staff observed solids in the pre and post UV treatment and flashing UV intensity measurement.
- 79. On January 31, 2018, DEQ staff conducted an energy audit at Oakland Park WWTP. Information from the audit is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the audit was not a compliance-based inspection. While conducting the audit, DEQ staff observed the following:
 - a. The facility has two trains. The A side was down for repairs. The B side's anoxic zone was not in operation due to mechanical repairs needed on the mixer.
 - b. The sand filter was out of service for repairs.
 - c. The main pump station standby pump needed to be repaired.
- 80. On January 23, 2018, DEQ staff visited the facility and observed that one train was completely offline because of a clogged return line. There was only one blower for the entire facility to provide air to both trains, the EQ basin, and the sludge holding tank. The operator had to make manual valve adjustments to adjust availability of air flow to plant operations.
- 81. The Authority failed to submit a survey of all industrial users that was due to DEQ by April 1, 2018.
- 82. NRO issued Notices of Violation for the violations listed above as follows: NOV No. 2015-06-N-0002, dated May 5, 2015; NOV No. W2015-08-N-0019, dated August 27, 2015; NOV No. W2015-09-N-0006, dated September 16, 2015; NOV No. W2015-10-N-

0002, dated October 8, 2012; NOV No. W2015-11-N-0009, dated November 18, 2015; NOV No. W2015-12-N-0005, dated December 22, 2015; NOV No. W2016-01-N-0006, dated January 26, 2016; NOV No. W2016-02-N-0004, dated February 17, 2016; NOV No. W2016-03-N-0009, dated March 16, 2016; NOV No. W2016-04-N-0006, dated April 25, 2016; NOV No. W2016-05-N-0006, dated May 17, 2016; NOV No. W2016-07-N-0009, dated July 12, 2016; NOV No. W2016-08-N-0005, dated August 29, 2016; NOV No. W2016-09-N-0007, dated October 5, 2016; NOV No. W2016-10-N-0005, dated October 24, 2016; NOV No. W2016-11-N-0003, dated November 16, 2016, revised December 20, 2016; NOV No. W2016-12-N-0010, dated December 20, 2016; NOV No. W2017-01-N-0003, dated January 9, 2017; NOV No. W2017-02-N-0003, dated February 16, 2017; NOV No. W2017-03-N-0003, dated March 15, 2017; NOV No. W2017-04-N-0019, dated April 25, 2017; NOV No. W2017-05-N-0004, dated May 25, 2017; NOV No. W2017-06-N-0005, dated June 13, 2017; NOV No. W2017-07-N-0005, dated July 20, 2017; NOV No. W2017-11-N-0002, dated November 9, 2017; NOV No. W2018-01-N-0002, dated January 10, 2018; NOV No. W2018-02-N-0004, dated February 14, 2018; NOV No. W2018-03-N-0020, dated March 27, 2018; NOV No. W2018-04-N-0002, dated April 13, 2018; NOV No. W2018-05-N-0008, dated May 18, 2018; and NOV No. W2018-06-N-0004, dated June 11, 2018.

83. On May 15, 2015, the Authority responded to the May 5, 2015 NOV. According to the Authority, the TSS excursion was due to the solids in the aeration basin being trapped in surface foam around the clarifier inlet. These solids found their way into the clarifier and the effluent. The operator responded by cleaning the clarifier inlet of any foam or solids. In order to prevent this from occurring again, the Authority stated the operators will spray and clean the inlets at least daily.
84. On November 9, 2015, the Authority responded to the August 27, September 16, and October 8, 2015 NOVs. The Authority explained that the TKN violations were addressed by increasing the soda ash feed to increase the pH and reducing the MLSS through additional wasting.
85. The Authority attributed the December 2015 TKN exceedance to automatic air flow control issues between Trains A&B. The September 2016 total recoverable copper exceedance was a result of not feeding enough lime to assist with the copper removal via the sand filters. The lime feed rate was increased and copper levels were reduced. The December 2016 TKN and CBOD₅ exceedances were determined to be the result of clogged return lines and/or inadequate air supply for the return lift pump. The Authority attributes the total annual nitrogen exceedance to not having a full year of operation of the equalization basin air diffusers. The January 2017 TKN exceedance was caused by a clogged returned line in Train A resulting from a blower malfunction. The returned line was cleared and air was restored to the lift pump. The February 2017 TSS, TKN, and total recoverable copper limits were exceeded when flows were transferred from Train B to Train A to allow for Train B sand filter maintenance. The flow required some time to establish additional biomass for treatment in Train A. The March and April 2017 TKN exceedances were a result of a blower malfunction. The April 2017 TSS exceedance was

a result of sand filter maintenance. The Train B sand filters were returned to service and flows were transferred back to Train A in late April 2017.

86. On November 6, 2015, the Authority responded to several inspection reports. The Authority said the DO and pH meter thermometers were calibrated and certified in September 2015 by EI Technical Services. On November 10, 2015, the Authority submitted a written certificate of calibration for the DO and pH meter thermometer instruments. The Authority stated the filter bypass was a single event required to make some repairs to the air scour lines and solenoid valves, and the filter was returned to operation. Additionally, the Authority stated it will monitor the clarifier troughs and UV channels for solids, as needed.
87. On July 13, 2017, the Authority submitted responses to the NOV's from August 2015 to July 2017. With respect to the flashing UV system alarms, the Authority said it had the UV system serviced on August 23, 2015 and that it cleans the modules. To address the solids, the Authority said it would increase cleaning frequency.
88. Va. Code § 62.1-44.5 states that: "[E]xcept in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances."
89. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.
90. Part I.A of the Oakland Permit provides that the Authority shall limit and monitor discharges from the outfalls in accordance with the discharge limitations in the Oakland Permit.
91. Part II.D of the Oakland Permit states: "The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from this discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit."
92. Part II.A.3 of the Oakland Permit states: "The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will ensure accuracy of measurements."

93. Part II.U.2 of the Oakland Permit states: "If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass."
94. Part II.Q of the Oakland Permit provides that the Authority shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.
95. Part I.C. of the Oakland Permit states: "Within 180 days of the effective date of this permit, the permittee shall submit to DEQ Northern Regional Office (DEQ-NRO) a survey of all Industrial Users (IUs) discharging to the publicly owned treatment worked (POTW). The information shall be submitted on the DEQ Discharge Survey Form; or an equivalent form that includes the quantity and quality of the IU wastewater. Survey results shall include the identification of significant industrial users of the POTW."
96. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a "certificate" under the statute.
97. The Department has issued no permits or certificates to the Authority authorizing the discharge of wastewater from the Oakland Park WWTP other than VPDES Permit No. VA0070106.
98. Muddy Creek is a surface water located wholly within the Commonwealth and is a "state water" under State Water Control Law.

PURKINS CORNER WWTP

99. The Authority owns and operates the Purkins Corner WWTP. The Purkins Permit allows the Authority to discharge treated sewage and other municipal wastes from the Purkins Corner WWTP to an unnamed tributary of Pine Hill Creek in strict compliance with the terms and conditions of the Purkins Permit.
100. Pine Hill Creek is located in the Potomac River Basin and is listed in DEQ's 305(b) report as impaired for aquatic life use due to excursions outside the dissolved oxygen criteria range.
101. In submitting its DMRs, as required by the Purkins Permit, the Authority has indicated that it exceeded discharge limitations contained in Part I.A.1 of the Purkins Permit, for TKN, TSS, and DO as follows:
- a. TKN- the Authority reported exceedances of the weekly concentration average maximum limit for February 2015.

- b. TSS- the Authority reported exceedances of the weekly concentration average maximum limit for January 2017.
- c. DO- the Authority reported a failure to meet the minimum concentration for August 2017.

102. The Authority delayed or failed to provide information in September 2015 and November 2015-April 2016 and June 2016-May 2017 as required by Permit Part II.D.

103. The Authority submitted a late DMR for the June 2017 reporting period.

104. On July 11, 2017, DEQ staff conducted a diagnostic evaluation at the Purkins Corner WWTP. Information from the evaluation is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the purpose of the evaluation was compliance assistance. During the evaluation, DEQ staff observed the following maintenance issues:

- a. The Archimedes screw brushes were worn.
- b. The line from the grit vortex to the grit classifier was clogged.
- c. The UV bank #2 had a short, resulting in failure of control panel signals and lighting.
- d. The lime tank mixer did not have the appropriate length impellor shaft installed.

105. On January 30, 2018, DEQ staff conducted an energy audit at Purkins Corner WWTP. Information from the audit is described here to inform requirements for corrective action, but is not being used for purposes of assessing a civil charge since the audit was not a compliance-based inspection. While performing the audit, DEQ staff made the following observations:

- a. The grit removal system was bypassed, allowing grit to accumulate in the activated sludge tank.
- b. The solids holding tanks were completely filled.
- c. One of the activated sludge trains had significantly higher dissolved oxygen levels than the other. The plant operator indicated that there is limited control due to faulty valve actuators and probes.

106. The Authority failed to submit a survey of all industrial users that was due to DEQ by May 31, 2018.

107. The Authority failed to submit a Pharmaceutical Management and Disposal Plan that was due to DEQ by May 1, 2018
108. NRO issued Notices of Violation for the violations listed above as follows: NOV No. W2015-08-N-0019, dated August 27, 2015; NOV No. 2015-09-0007, dated September 16, 2015; NOV No. W2015-10-N-0003, dated October 8, 2015; NOV No. W2015-11-N-0011, dated November 18, 2015; NOV. No. W2015-12-N-0004, dated December 22, 2015; NOV. No. W2016-01-N-0007, dated January 26, 2016; NOV No. W2016-7-N-0008, dated July 12, 2016; NOV No. W2016-02-N-0003, dated February 17, 2016; NOV No. W2016-03-N-0008, dated March 16, 2016; NOV No. W2016-04-N-0005, dated April 25, 2016; NOV No. W2016-05-N-0005, dated May 17, 2016; NOV No. W2016-06-N-0005, dated June 14, 2016; NOV No. W2016-07-N-0008, dated July 12, 2016; NOV No. W2016-08-N-0004, dated August 29, 2016; NOV No. W2016-09-N-0006, dated October 5, 2016; NOV No. W2016-10-N-0004, dated October 24, 2016; NOV No. W2016-11-N-0002, dated November 16, 2016; NOV No. W2016-12-N-0009, dated December 20, 2016; NOV No. W2017-01-N-0002, dated January 9, 2017; NOV No. W2017-02-N-0002, dated February 16, 2017; NOV No. W2017-03-N-0002, dated March 15, 2017; NOV No. W2017-04-N-0018, dated April 25, 2017; NOV No. W2017-05-N-0003, dated May 25, 2017; NOV No. W2017-06-N-0003, dated June 13, 2017; NOV No. W2017-07-N-0003, dated July 20, 2017; NOV No. W2017-12-N-0004, dated December 15, 2017; and NOV No. W2018-07-N-0001, dated July 6, 2018.
109. On July 10, 2017, the Authority responded to the NOVs from late 2015 to 2017. The Authority stated the TSS exceedance in January 2017 was the result of a malfunctioning effluent pinch valve for the equalization basin. The pinch valve was repaired and the level sensor was re-programmed for automatic operation and consistent flows.
110. Va. Code § 62.1-44.5 states that: “[E]xcept in compliance with a certificate issued by the Board, it shall be unlawful for any person to discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances.”
111. The Regulation, at 9 VAC 25-31-50, also states that except in compliance with a VPDES permit, or another permit issued by the Board, it is unlawful to discharge into state waters sewage, industrial wastes or other wastes.
112. Part 1.A of the Purkins Permit provides that the Authority shall limit and monitor discharges from the outfalls in accordance with the discharge limitations in the Purkins Permit.
113. Part II.D of the Purkins Permit states: “The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from this discharge on the quality of

state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.”

114. Part II.Q of the Purkins Permit provides that the Authority shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

115. Va. Code § 62.1-44.15(5a) states that a VPDES permit is a “certificate” under the statute.

116. The Department has issued no permits or certificates to the Authority authorizing a discharge from the Purkins Corner WWTP other than VPDES Permit No. VA0070106.

117. Pine Hill Creek is a surface water located wholly within the Commonwealth and is a “state water” under State Water Control Law.

CONCLUSIONS COMMON TO ALL FACILITIES

118. Based on the inspections, DMRs, and other reports, the Board concludes that the Authority has violated the Hopyard Permit, the Fairview Permit, the Dahlgren Permit, the Oakland Permit, the Purkins Permit, Va. Code § 62.1-44.5, and 9 VAC 25-31-50, by discharging treated sewage and municipal wastes from the Plants while concurrently failing to comply with the conditions of the Permits, as described in paragraphs C(3-8), (23-29), (44-51), (73-81), and (101-107), above.

119. Since 2009, the Water Quality Improvement Fund has assessed the Authority \$162,330 in monetary assessments in response to the nutrient performance at the Fairview Beach and Dahlgren WWTPs.

120. On November 29, 2017, Department staff met with representatives of the Authority to discuss the violations, the compliance history at the five WWTPs, and possible corrective actions.

121. On April 17, 2018, Department staff met with the Board of Directors of the Service Authority to discuss the violations and corrective actions.

122. On May 10, 2018, Department staff met with representatives of the Authority to discuss the violations and corrective actions.

123. In order for the Authority to return to compliance, DEQ staff and representatives of the Authority have agreed to the Schedules of Compliance, which are incorporated as Appendices A thru F of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code § 62.1-44.15, the Board orders the Authority, and the Authority agrees to:

1. Perform the actions described in Appendices A through F of this Order; and
2. Pay a civil charge of \$82,250 within 30 days of the effective date of the Order in settlement of the violations cited in this Order.

Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia," and delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

The Authority shall include its Federal Employer Identification Number (FEIN) with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF). If the Department has to refer collection of moneys due under this Order to the Department of Law, the Authority shall be liable for attorneys' fees of 30% of the amount outstanding.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of the Authority, for good cause shown by the Authority or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, the Authority admits the jurisdictional allegations, findings of fact, and conclusions of law contained herein.

4. The Authority consents to venue in the Circuit Court of the County of King George for any civil action taken to enforce the terms of this Order.
5. The Authority declares it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.
6. Failure by the Authority to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. The Authority shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. The Authority shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. The Authority shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:
 - a. the reasons for the delay or noncompliance;
 - b. the projected duration of any such delay or noncompliance;
 - c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
 - d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and the Authority. Nevertheless, the Authority agrees to be bound by any compliance date which precedes the effective date of this Order.
11. This Order shall continue in effect until:
 - a. The Director or his designee terminates the Order after the Authority has completed all of the requirements of the Order;
 - b. The Authority petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to the Authority.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve the Authority from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by the Authority and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.
13. The undersigned representative of the Authority certifies that he or she is a responsible official authorized to enter into the terms and conditions of this Order and to execute and legally bind the Authority to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of the Authority.
14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.
15. By its signature below, the Authority voluntarily agrees to the issuance of this Order.

And it is so ORDERED this _____ day of _____, 2018.

Justin Williams
Director, Division of Enforcement
Department of Environmental Quality

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King George County Service Authority voluntarily agrees to the issuance of this Order.

Date: July 11, 2018 By: Christopher Werle Chairman, KACSABOD
(Person) (Title)
King George County Service Authority

Commonwealth of Virginia
City/County of King George

The foregoing document was signed and acknowledged before me this 11th day of
July, 2018, by Christopher Werle who is
Chairman of King George County Service Authority, on behalf of the
Authority.

LaWanda Smith
Notary Public

7661068
Registration No.

My commission expires: January 31, 2020

Notary seal:



APPENDIX A All Five WWTPs SCHEDULE OF COMPLIANCE

1. Process Controls

- a. The Authority shall develop standard operating procedures (SOPs) for treatment process control testing and process adjustments at each facility. The SOPs shall, at a minimum, include a comprehensive section on the review and analysis of influent and effluent sample data, as well as treatment process and performance data. All process control testing information shall be maintained and organized in a readily available location at each respective WWTP.
- b. The Authority shall implement the SOPs as soon as they are drafted, subject to DEQ review and comment.
- c. The Authority shall submit the SOPs to DEQ by January 13, 2019.
- d. DEQ shall review the SOPs and provide comments within 45 days of receipt.
- e. The Authority shall respond to any DEQ comments on the SOPs within 30 days.

2. Feasibility Study

- a. By March 20, 2019, the Authority shall submit to DEQ the results of a feasibility study describing closure of the Oakland Park WWTP and Purkins WWTP and expansion of Hopyard WWTP.

3. Corrective and Preventative Maintenance

- a. Communication and Maintenance
 - i) The Authority shall develop SOPs describing an internal communications plan to improve operational instruction and direction between WWTP management and facility operators to improve treatment processes, timely maintenance of equipment, and to ensure all facility equipment is operating according to design and manufacturer recommendations. The SOPs shall, at a minimum, include scenarios for major equipment failure, corrective action and repair procedures, and an organizational chart describing communication pathways for the resolution of WWTP operational problems.
 - ii) The Authority shall implement the SOPs as soon as they are drafted, subject to DEQ review and comment.
 - iii) The Authority shall submit the SOPs to DEQ by January 13, 2019.
 - iv) DEQ shall review the SOPs and provide comments within 45 days of receipt.
 - v) The Authority shall respond to any DEQ comments on the SOPs within 30 days.

b. Ultra Violet (UV) Disinfection

- i) The Authority shall incorporate a requirement into each Facility's SOP to notify DEQ within 24 hours whenever a UV intensity meter is flashing, out of service, or otherwise not functioning in accordance with its intended purpose. When a meter is flashing, out of service, or otherwise not functioning in accordance with its intended purpose, the Authority shall follow the steps outlined in the facility's O&M manual..

c. Solids Handling

- i) The Authority shall develop an SOP describing a process to readily acquire pump truck service to pump solids out of the digesters in a timely manner rather than the operators having to run the plants with a high solids inventory.
- ii) The Authority shall implement the SOP as soon as it is drafted, subject to DEQ review and comment.
- iii) The Authority shall submit the SOP to DEQ by February 9, 2019.
- iv) DEQ shall review and provide comments within 45 days of receipt.
- v) The Authority shall respond to any DEQ comments on the SOP within 30 days.

d. O&M Manual

- i) The Authority shall ensure all five facility O&M Manuals are maintained onsite and updated annually, reflecting the current operations of the facility and current permit requirements. The Authority shall maintain all facility approval letters from DEQ with the O&M Manual. Each O&M Manual shall be maintained and readily available at its respective facility. The following shall be included in each O&M Manual:
 - (1) Each facility must meet Reliability Class 1 requirements;
 - (2) Each facility must maintain a Class II operator, except for Dahlgren which is designated Class I;
 - (3) Complete process control testing procedures;
 - (4) A provision to limit the freeboard in digesters and/or waste holding tanks.
- ii) The Authority shall provide to DEQ an updated O&M Manual for each facility by February 9, 2019.
- iii) DEQ shall review and provide comments within 45 days of receipt.
- iv) The Authority shall respond to any DEQ comments on the O&M Manuals within 30 days.
- v) Upon approval, the Authority shall implement the updated O&M Manuals.

e. Sanitary Sewer Collection Systems

- i) By March 7, 2019, the Authority shall provide an inventory of all sewage pumping stations and their respective reliability classification determination using the standardized worksheet provided by DEQ.
- ii) All sewage pumping stations in King George County shall be designed to meet Reliability Class I SCAT Regulations. The Authority may submit the required information using an itemized spreadsheet in place of individual worksheets. Additional details required in the submittal include:
 - (1) Identification of the WWTP each pumping station serves; and
 - (2) Plan and schedule for upgrade of any pumping station that does not meet Reliability Class I.
- iii) The Authority shall develop SOPs for the regular maintenance, daily operation and observations of all pump stations serving the KGCSA treatment plants.
- iv) The Authority shall implement the SOPs as soon as they are drafted, subject to DEQ review and comment.
- v) The Authority shall provide the SOPs to DEQ by March 7, 2019.
- vi) DEQ will review the SOPs and provide comments within 45 days of receipt.
- vii) The Authority shall respond to any DEQ comments on the SOPs within 30 days.

4. **Training**

- a. The Authority shall ensure that each WWTP operator attends at least one DEQ operator training session within one year of the effective date of the Order.
- b. Within one year of the effective date of the Order, the Authority shall provide DEQ a list with each operator and the date they attended a DEQ operator training session.

**APPENDIX B
HOPYARD FARM WWTP
SCHEDULE OF COMPLIANCE**

1. Corrective and Preventative Maintenance

- a. The Authority shall:
 - i) Locate, repair, and return the grinder/macerator to the Facility by November 7, 2018;
 - ii) Repair or replace the indicator lights for the UV bulbs in the disinfection unit so that the operators can easily determine their status by July 24, 2018;
 - iii) Repair the control panel screen for the disinfection unit by September 30, 2018 or later date as mutually agreed based on replacement part availability.
 - iv) Repair the UV disinfection unit or submit to DEQ a request for a permit modification for chlorine limitations to be added to the permit by July 24, 2018. This modification will provide a dual UV/chlorine option.

2. Plan and Schedule of Corrective Action

- a. By September 14, 2018, the Authority shall submit to DEQ a memorandum listing the steps it has taken to achieve compliance with total phosphorus permit limits at the Hopyard WWTP.
- b. Within 45 days of the effective date of this Order, the Authority shall submit to DEQ an interim plan for achieving consistent compliance with total phosphorus permit limits at the Hopyard WWTP.
- c. By March 7, 2019 the Authority shall submit to DEQ for review and approval, a detailed plan of action addressing how the Authority will achieve consistent compliance with total phosphorus permit limits at the Hopyard WWTP. Said plan of action shall also include a plan of implementation.
- d. DEQ will review the plan and provide comments within 45 days of receipt.
- e. The Authority shall respond to DEQ comments within 30 days.
- f. Upon DEQ approval, the plans and schedules shall become a part of and enforceable under the terms of this Order.

APPENDIX C
FAIRVIEW BEACH WWTP
SCHEDULE OF COMPLIANCE

1. Corrective and Preventative Maintenance

- a. The Authority shall:
 - i) Identify the designated responsible charge operator for the facility, and persons authorized to make operational changes in the plant's O&M manual and records by September 1, 2018;
 - ii) Use a suitable instrument to which a sterile bacteriological sampling bottle can be affixed to ensure that bacteriological samples can be collected safely and without contamination by July 15, 2018;
 - iii) Repair the UV disinfection unit or submit to DEQ a request for a permit modification for chlorine limitations to be added to the permit by July 24, 2018. This modification will provide a dual UV/chlorine option;
 - iv) Repair the degritting equipment and put it back into service by July 15, 2018.

2. Plan and Schedule of Corrective Action

- a. By September 14, 2018, the Authority shall submit to DEQ a memorandum listing the steps it has taken to achieve compliance with total phosphorus, fecal coliform, enterococci, and ammonia as nitrogen permit limits at the Fairview WWTP.
- b. Within 45 days of the effective date of this Order, the Authority shall submit to DEQ an interim plan for achieving consistent compliance with total phosphorus, fecal coliform, enterococci, and ammonia as nitrogen permit limits at the Fairview WWTP.
- c. By March 7, 2019 the Authority shall submit to DEQ for review and approval, a detailed plan of action addressing how the Authority will achieve consistent compliance with total phosphorus, fecal coliform, enterococci, and ammonia as nitrogen permit limits at the Fairview WWTP. Said plan of action shall also include a plan of implementation.
- d. DEQ will review the plan and provide comments within 45 days of receipt.
- e. The Authority shall respond to DEQ comments within 30 days.
- f. Upon DEQ approval, the plans and schedules shall become a part of and enforceable under the terms of this Order.

APPENDIX D DAHLGREN WWTP SCHEDULE OF COMPLIANCE

1. Particulate Matter, Algae Growth, Floating Materials

- a. By February 8, 2019, the Authority shall evaluate the following options to address particulate matter, excessive algae growth, and floating materials, and submit the results of the evaluation to DEQ:
 - i) Microalgae utilization for algae control;
 - ii) Construction of a roof or cover for the final effluent tank;
 - iii) Increase frequency of cleaning.

2. Corrective and Preventative Maintenance

- a. By September 30, 2018, or a later date as mutually agreed based on replacement part availability, the Authority shall repair the UV disinfection unit or submit to DEQ a request for a permit modification for chlorine limitations to be added to the permit. This modification will provide a dual UV/chlorine option.

3. O&M Manual

- a. By July 24, 2018, the Authority shall update the O&M Manual to reflect that the short aerator rotor near the influent to oxidation ditch #1 is now located in the anoxic zone and is not being used.

4. Plan and Schedule of Corrective Action

- a. By September 14, 2018, the Authority shall submit to DEQ a memorandum listing the steps it has taken to achieve compliance with total phosphorus, TSS, TKN, and Enterococci permit limits at the Dahlgren WWTP.
- b. Within 45 days of the effective date of this Order, the Authority shall submit to DEQ an interim plan for achieving consistent compliance with total phosphorus, TSS, TKN, and Enterococci permit limits at the Dahlgren WWTP.
- c. By March 7, 2019, the Authority shall submit to DEQ for review and approval, a detailed plan of action addressing how the Authority will achieve consistent compliance with total phosphorus, TSS, TKN, and Enterococci permit limits at the Dahlgren WWTP. Said plan of action shall also include a plan of implementation.
- d. The Authority shall respond to DEQ comments on the plan within 30 days.
- e. Upon DEQ approval, the plans and schedules shall become a part of and enforceable under the terms of this Order.

APPENDIX E OAKLAND WWTP SCHEDULE OF COMPLIANCE

1. Corrective and Preventative Maintenance

- a. By July 19, 2018, the Authority shall:
 - i) Repair the Oakland Park main pump station standby pump;
 - ii) Repair the train that was completely offline because of a clogged return line;
 - iii) Repair the sand filter.

2. Plan and Schedule of Corrective Action

- a. By September 14, 2018, the Authority shall submit to DEQ a memorandum listing the steps it has taken to achieve compliance with total phosphorus, total nitrogen, TSS, TKN, copper, CBOD₅ and dissolved oxygen permit limits at the Oakland WWTP.
- b. Within 45 days of the effective date of this Order, the Authority shall submit to DEQ an interim plan for achieving consistent compliance with total phosphorus, total nitrogen, TSS, TKN, copper, CBOD₅ and dissolved oxygen permit limits at the Oakland WWTP.
- c. By March 7, 2019, the Authority shall submit to DEQ for review a detailed plan of action addressing how the Authority will achieve consistent compliance with total phosphorus, total nitrogen, TSS, TKN, copper, CBOD₅ and dissolved oxygen permit limits at the Oakland WWTP. Said plan of action shall also include a plan of implementation.
- d. DEQ will provide comments on the plan within 45 days of receipt.
- e. The Authority shall respond to DEQ comments on the plan within 30 days.
- f. Upon DEQ approval, the plans and schedules shall become a part of and enforceable under the terms of this Order.

3. Survey of Industrial Users

- a. By October 1, 2018, the Authority shall submit to DEQ's Northern Regional Office a survey of all Industrial Users (IUs) discharging to the Oakland WWTP. The information shall be submitted on the DEQ Discharge Survey Form or an equivalent form that includes the quantity and quality of the IU wastewater. The survey results shall include the identification of significant industrial users of the POTW.

**APPENDIX F
Purkins WWTP
SCHEDULE OF COMPLIANCE**

1. Corrective and Preventative Maintenance

- a. By August 19, 2018, the Authority shall:
 - i. Replace the Archimedes screw brushes;
 - ii. Unclog the line from the grit vortex to the grit classifier;
 - iii. Install the appropriate length impellor shaft for the lime tank mixer;
 - iv. Repair the actuator valve and D.O. probes on the activated sludge tanks.

2. Survey of Industrial Users

- a. By October 1, 2018, the Authority shall submit to DEQ's Northern Regional Office a survey of all Industrial Users (IUs) discharging to the Purkins WWTP. The information shall be submitted on the DEQ Discharge Survey Form or an equivalent form that includes the quantity and quality of the IU wastewater. The survey results shall include the identification of significant industrial users of the POTW.

3. Pharmaceutical Plan

- a. By October 1, 2018, the Authority shall submit to DEQ's Northern Regional Office a Pharmaceutical Management and Disposal Plan that meets the requirements of the Purkins WWTP permit.

DEQ Contact

Unless otherwise specified in this Order, the Authority shall submit all requirements of the Appendices of this Order to:

**Kristen Sadtler
Water Enforcement Manager
VA DEQ – Central Office
P.O. Box 1105
Richmond, VA 23218
804-698-4149
Kristen.sadtler@deq.virginia.gov**